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GRAMMAR--THE PROTEUS OF THE ENGLISH CURRICULUM.

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THE ENGLISH CURRICULUM CAN BE MADE MORE EFFECTIVE BY CONSIDERING THE SIGNIFICANT PART PLAYED BY THE COMPONENT OF GRAMMAR. THE NATIVE SPEAKER OF ENGLISH POSSESSES AN INTUITIVE KNOWLEDGE OF THE RULES OF GRAMMAR AND YET CANNOT EXPLAIN WHAT HIS INTUITION KNOWS. THEREFORE, A PRECISE, ECONOMICAL DESCRIPTION OF THE LANGUAGE MECHANISM AND HOW IT FUNCTIONS IS NEEDED. THIS DESCRIPTION OF THE ENGLISH LANGUAGE--MORE SPECIFICALLY, OF THE SENTENCE--IS ATTEMPTED BY THREE APPROACHES TO GRAMMAR. THE TRADITIONAL APPROACH, CRITICIZED FOR BEING PRESCRIPTIVE RATHER THAN DESCRIPTIVE, CONCENTRATES MORE ON SURFACE DEVIATIONS AND FLAT DIAGRAMING THAN ON THE ESSENCE OF GRAMMAR. THE STRUCTURAL APPROACH, AIMED AT BEING DESCRIPTIVE RATHER THAN PRESCRIPTIVE, ANALYZES THE STATE OF LANGUAGE--NOT ITS LEVELS OF OPERATION--BY POINTING OUT STRUCTURAL SIGNALS WHICH INDICATE SENTENCE PATTERNS AND PARTS OF SPEECH. THE GENERATIVE-TRANSFORMATIONAL APPROACH IS CONCERNED WITH DESCRIBING THE DEEP AND SURFACE STRUCTURES OF SENTENCES AND EXPLAINING THEIR RELATIONSHIPS, THUS PROVIDING A CLEARLY DEFINED NORM OF THE LANGUAGE PROCESS. (THIS ARTICLE APPEARED IN THE "ILLINOIS ENGLISH BULLETIN," VOL. 55, NO. 2, NOVEMBER 1967. IT IS ALSO AVAILABLE FROM THE NATIONAL COUNCIL OF TEACHERS OF ENGLISH, 508 SOUTH SIXTH ST., CHAMPAIGN, ILL. 61820, \$0.60, ORDER NO. 25350.) (JB)

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Grammar—the Proteus of the English Curriculum

BY KATHARINE O. ASTON

The English teacher can take pride in the fact that he is concerned with one of the most essential subjects in the school curriculum. According to the National Council of Teachers of English, a professional organization for elementary, secondary and college English teachers, forty to fifty percent of the child's time in the elementary school is spent on some aspect of English and English is the only subject that the student encounters every year throughout the elementary and secondary schools. But an obvious concomitant of the importance of his task is the responsibility to perform effectively—even though he may be burdened with an excessive teaching load of five or more classes daily for a total of one hundred fifty to two hundred students.¹

Much attention has been given to making the teacher more effective. Recommendations for easing the burden of the teaching situation have been made. Teacher training projects, often with the support of government funds, have been undertaken. Among these are such significant undertakings as the NDEA summer institutes for training teachers and the two-semester advanced teacher education program sponsored by the United States Office of Education. There are also in-service training courses, like the one commonly offered in Illinois, where the discussions center on

¹Michael Shugrue. *How the "New English" will Help your Child.* Family Life Library, Association Press, 1966, pp. 22-46.

the following areas: grammar, composition and literature, audio-visual aids, opportunities for keeping up with current developments. Finally in this pursuit of greater effectiveness, ways to improve the *curriculum* have been explored in such government supported Curriculum Centers as those at the Carnegie Institute of Technology, the University of Nebraska, and the University of Oregon. It is with curriculum improvement that this monograph is concerned: The English curriculum and the part grammar can play in making it more effective.

It is not new to divide the English curriculum into three basic components: Language, Composition, and Literature. Recognition of the importance of this triad is obvious in the recommendation made by scholars, teacher educators, high school teachers, supervisors, and state officials who were brought together on the study of certification requirements for elementary teachers and secondary teachers of English which was sponsored by the United States Office of Education and directed by the National Council of Teachers of English, the Modern Language Association, and the National Association of State Directors of Teacher Education and Certification. These groups of educators agreed that a secondary teacher of English should have a college major in English and this major should balance the study of literature with (1) an up-to-date study of the English language and especially linguistics and (2) the study of composition, including practice in composition.

Nevertheless, the relative value of these three areas and their relationship to each other and the total curriculum for effective teaching continue to give rise to much controversy. Certainly, the established high school programs and even new curriculums do not seem to represent a true balance. James Squire, the Executive Secretary of NCTE, reports in his *National Study of High School English Programs* that fifty-two percent of the time in the classes visited during the study was devoted to literature, sixteen percent to composition, and only fourteen percent to language, and these secondary English classes were considered superior ones. The Curriculum Study Center in English at Carnegie Institute of Technology allots fifty-six percent of the instruction time in its new curriculum for grades ten through twelve to literature, twenty-six percent to composition, and only eighteen percent to language.²

Why has language fared so badly? The question stands out in italics when one considers how significant this human phenomenon, language, is to the very existence of not only each individual

² *Ibid.*, pp. 75-76.

but also whole societies. But set these broader considerations aside for the moment and concentrate on the restricted area of an English curriculum. It is obvious that there would be no literature or composition if there were no language. Doesn't it seem plausible that the woof and warp of the raw material merits study as much as the creations designed out of it?

English curriculums have been criticized for lacking rigor of content, procedures, and purpose. The place of English in a school curriculum wavers from a service tool course to help the students' expression in other disciplines to a discipline in its own right among the humanities. What role can language play in giving a precise dimension, a structured entity to content that can fluctuate from an errant dangling modifier on a student's composition to a universal couched in a heroic couplet?

To determine the role, one must first determine the concept of *language* as one of the triad. Perhaps of the three components of an English curriculum, this component is the most grossly misunderstood and subjected to the widest range of conflicting interpretations. A significant source of difficulty in defining language is grammar, a basic aspect of this component.

Grammar seems to change its shape with each hold an educator gets on it—an academic Proteus that could yield much if the educator could persevere until the true form is revealed and the educator's question is answered.

The meaning of the term *grammar* varies so much today that no intelligent conversation can ensue until the area is defined. There is a chaos of conflicting theories regarding both procedures and content. The concept has been further complicated by the so-called new grammar, a term which has already become ambiguous since there are now several "new grammars," so that a person is not sure whether the speaker is referring to the new grammar number 1, or the new grammar number 2, or the new grammar number 3 (an eclectic 1-2 grammar), and so on. Closely related to this term *grammar* and sometimes synonymous with it is the equally confusing term *linguistics*, the source of the new English grammar. Linguistics, a comparatively new science, has aroused various reactions ranging from extreme skepticism or boredom to intense enthusiasm. Each school of linguistics, each new grammar, has its cadre of fervent defenders who are ready to charge onto the battlefield where the poor English teacher is caught in the crossfire. It is no wonder that the secondary English teacher, already overburdened, gives up and retreats to the literature he knows and fully enjoys or even to composition (for however time

consuming it may be, it is a known entity), and grammar recedes to the token flatwork of mechanics and occasional diagramming. The excitement that grammar could afford is lost.

It should be comforting to the tormented teacher to realize that grammar, as used in this monograph, is not a complete *unknown*. Every child by approximately the age of six knows the grammar of his language. His knowledge can be described in terms of competence and of performance, where competence is the underlying major dimension upon which performance is based. He already has the capacity to comprehend and to create an infinite number of utterances he has never heard before. Moreover, by the rules of this grammar in his head, he is able to judge the grammaticalness of an utterance, i.e., to reject it or to accept it as one that the grammar of his language could produce.

How often has a native speaker of English heard the utterance, "That chicken with the broken wing always eats chocolate sundaes with pickle and grain of sand on top"? Probably no one has ever heard or read that sentence before and yet there is also probably no native speaker that does not comprehend it. He not only comprehends it; he can also "manipulate" it. For instance, he could change or transform it to any of the following:

1. A question, in which he would automatically add a tense-bearer *do* at the beginning: Does that chicken always eat . . . ?
2. A negative, again with the addition of a tense-bearer *do*: That chicken does not always eat. . . .
3. A passive with *be* and a past participle of the verb *eat*: Chocolate sundaes with . . . are always eaten by that chicken . . .

and so on. No one has to model each of these changes for him. He can make them because he has operational grammar rules that, recognizing relationships between structures, can lead from one to the other.

Native speakers are not limited just to manipulation of a given sentence. No one had to teach the writer of this monograph the sentence that served as the illustration. And any native speaker could create as many new sentences as time would permit. Human beings are not mynah birds or parrots. They do not have to learn each sentence by rote, by mimicking a model. A human being can create an infinite number of sentences simply by applying the grammar rules that he knows intuitively. (These rules were never formally taught to him.)

Although the sentence given above as an illustration lacked frequency or probability of occurrence, it was grammatical and all the operations performed upon it produced grammatical utterances. A native speaker can judge grammaticalness or degrees of it at a very general or gross level devoid of semantic restrictions on collocation that would be necessary to produce a completely grammatical sentence. Confronted with the two following sequences and requested to select the more grammatical of the two, native speakers would unanimously choose *b.*, even though the components in a collocation like "flabby bricks" or "braying centipedes" are not semantically coordinated.

- a. centipedes flabby braying the those brick stampeded
- b. those braying centipedes stampeded the flabby brick

(It is interesting to note that *b.* is also easier to remember because of its grammaticalness.)

Again, if given the two following sequences in which the semantic coordinates are observed and consequently sense, instead of nonsense, is produced, the native speaker would choose *b.* over *a.* in English of the present day (though not in the English of the Elizabethan era).

- a. Wrote you that assignment?
- b. Did you write that assignment?

And the grammaticalness of the following utterance cannot be contested although the validity of the statement can.

Carl Sandburg was born in Alabama.

Grammaticalness is obviously not *restricted* to semantic truth or sense or to statistical probability or frequency of occurrence. It is rather a compatability with the grammar rules.

The native speaker with his intuitive knowledge of the rules and with his grammatical awareness is equipped to receive the fresh experience afforded by the intentional, though often minor surface deviations from grammaticalness which creative copy writers, cartoonists, and poets make use of. Consider the following examples:

- a. The caption under a picture of a comfortable ranch house in an advertisement for a housing development: It's the famliest.
(Of course, one could have used a more conventional form, *homeliest*, but the word obviously has short comings in this context in America.)
- b. An utterance from Pogo after the left-handed pelican has

swallowed the only ball in the baseball game: Ever'body's out. That was the onliest ball.

- c. A line from E. E. Cummings: Love is more thicker than forget.

The native speaker would also be able intuitively to penetrate surface similarity or ambiguity to discover multiple underlying patterns. Although he might not be able to describe the pattern, he could easily be led to show the differences through manipulation.

Consider the following ambiguous sentence: Mary kept the toys in the attic. The ambiguity can be demonstrated by the following transformations:

Question: a. Where did Mary keep the toys?

b. Which toys did Mary keep?

Passive: a. The toys were kept in the attic (by Mary).

b. The toys in the attic were kept (by Mary).

Relative Clause: Mary kept the toys which were in the attic. (Applicable only to sentence b.)

Consider the following sentences with surface similarity in which the underlying differences are obvious:

- a. The souvenirs were sold by the merchants.
- b. The souvenirs were sold by the thousands.
- c. The souvenirs were sold by the hot springs.
- d. The souvenirs were sold by the holidays.

The merchants sold the souvenirs but the holidays obviously did not. A question transformation with *where* could only be used for item c.; with *when*, for item d.; and so on.

If grammar is so well-known to the native speaker, where is the newness, the challenge that surrounds it? Native speakers can use it, but they cannot explain what their intuition knows. They cannot objectify the process, give the rules that will produce those infinite utterances their grammar can create. The newness obviously lies in providing a precise, economical description of this mechanism and the way it functions.

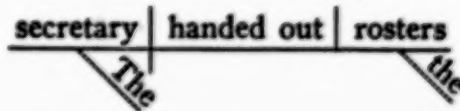
What approaches to the description of grammar have been attempted so far in the schools? In the secondary curriculums today there are three main approaches: the traditional, the structural, and the generative-transformational. To get a glimmer of the differences in these approaches, which reflect differences in basic concepts of grammar, compare the descriptions of the following sentence. (It must be noted here that the procedure of the generative-transformational grammar in arriving at the descrip-

tion is not adequately represented. The generative-transformational description would start with "phrase structure rules" consisting of constituent symbols in the syntax of the deep grammar and only in the final stage would produce the sentence in the form given here as the starting point for this comparative study.)

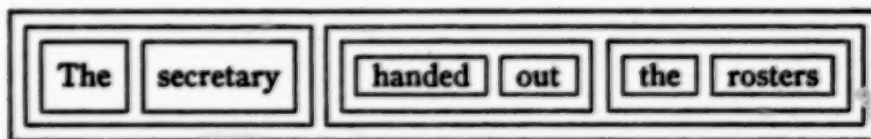
- a. The secretary handed out the rosters.

Traditional analysis:

(one interpretation)

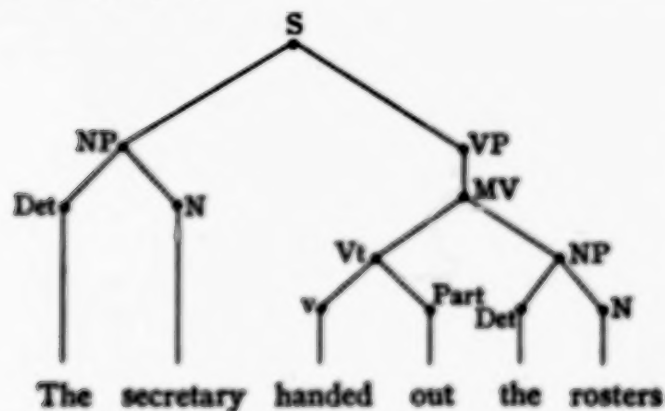


Structural analysis:



Generative-transformational analysis:

(Simplified labelled tree resulting from the application of ordered rules, where S = sentence; NP = noun phrase; Det = determiner; N = noun; VP = verb phrase; MV = main verb; Vt = verb-transitive; v = verb (component); Part. = particle)

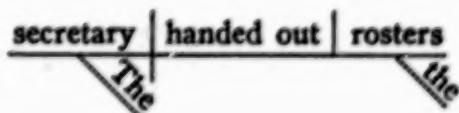


Now compare the descriptions under a. above with following descriptions under b. in which "the roster" has been placed between *handed . . . out*.

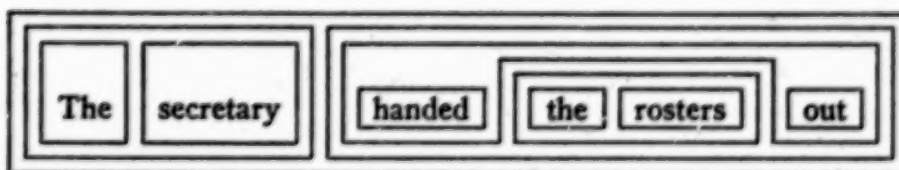
b. The secretary handed the rosters out.

Traditional analysis:

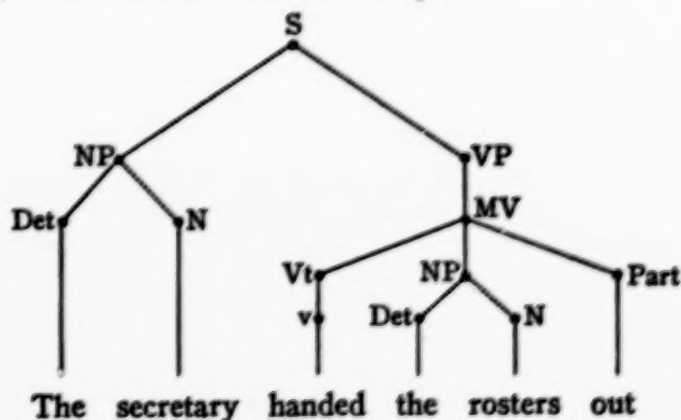
(one interpretation)



Structural analysis:



Generative-transformational analysis:



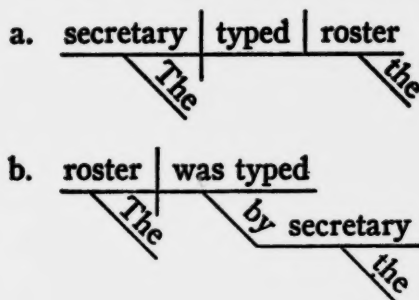
This tree would result from well-ordered transformation rules deriving sentence *b*. from sentence *a*.

The traditional grammar recognizes the underlying similarity of the two sentences but ignores the surface differences. The structural description, on the other hand, indicates the differences, but nothing about the underlying relationship between sentence *a*. and sentence *b*. In other words, the structural grammar, viewing the sentences as unique entities, assigns unique visual representation to each. The generative-transformational grammar would also assign to each sentence a unique structure resulting from the choice and application of the rules. However, the rules would also indicate the relationship of sentence *a*. and sentence *b*., i.e., the grammar by specific transformation rules would describe the formal operations performed on the underlying structure of sen-

tence *a.* to derive sentence *b.* so that not only the surface differences but also the underlying sameness would be apparent. Thus the generative-transformational grammar explicitly describes what the native speaker intuitively knows — that underlying the surface differences the two sentences are basically the same sentence.*

In the example above, the traditional grammar caught the essential similarity of the sentences; and thus the grammar here, by satisfying this criterion, achieved the level of descriptive adequacy. Unfortunately, the traditional grammar is not always consistent in its descriptions. Some essential similarities are not depicted. Notice how the following, which are obviously related, are described as independent sentences.

- a. The secretary typed the roster. (Active)
- b. The roster was typed by the secretary. (Passive)



The structural grammar observed the differences in the two surface structures of the sentences about the secretary handing out the roster and in this sense achieved *observational* adequacy. But by concentrating on the surface forms, the grammar can and does miss differences that underlie apparently similar structures. Often cited as an example of misleading surface similarity are the following sentences:

- a. John is eager to please.
- b. John is easy to please.

Obviously in sentence *a.* "to please" < John pleases someone; in sentence *b.* "to please" < Someone pleases John. Additional examples of misleading surface similarity can be found in the earlier discussion on native language competence.

In summary, the traditional grammar has a limited *descriptive* adequacy but it offers even then only a flat statement of the simi-

*For elaboration of this comparison of grammar approaches and the following discussion of grammar adequacy, see Wayne A. O'Neil (with exercises by Annabel R. Kitzhaber). *Kernels and Transformations. A Modern Grammar of English*, McGraw-Hill, Inc. 1965, pp. 15-22.

larity of sentences which are apparently different. The structural approach, on the other hand, observing the surface output patterns at their face value which often reveals differences, can be said to achieve a level of *observational* adequacy. The generative-transformational grammar, explicating the important regularities of language and defining them with precise, well-ordered rules that account not only for surface differences but also for underlying sameness by describing explicitly the various states of language output and the process of development from one state to another, achieves a level of *explanatory* adequacy.

Each of the grammar approaches rated above for adequacy can be further characterized by a brief summary of some of the features commonly attributed to it. It should be noted that there is a marked difference between theoretical grammars and pedagogical applications for classroom texts. Each of the grammar approaches can boast of outstanding scholars. Their scholarship should not be judged by the textbook applications. These applications represent a wide range of quality. There are some texts that are characterized by effective selection and adaptation of theoretical principles to meet the particular pedagogical goals. Unfortunately, however, there are also very inferior materials that are not merely ineffective but are actually inaccurate, conveying much misinformation.

THE TRADITIONAL APPROACH

The scholarly research in the traditional grammar collected and analyzed a wealth of items. Esoteric particulars were often attended to but a concise, operational, explicit description of the regular patterns and their relationship were not the focus of the research. When acceptable generalizations were made, they were often based upon intuition that relied upon the grammar a native speaker has in his head. Insofar as these generalizations reflected the rules of this internal grammar, they were accurate, even if not precisely expressed.

In a very real sense, for instance, *you* is understood as the subject of a command; but this intuitive description that appears in so many school grammars lacks consistency and precision. To speak of *you* as *understood* suggests a confusion in point of reference, stepping from the encoder or speaker, the common reference point of most grammars, to the decoder or listener. Moreover, no precise evidence is presented to substantiate the claim that the description based on intuition has made. One can easily demon-

strate that *you* must be the *deleted* subject by considering a command in which the reflexive pronoun is used as the object.

Help yourself.

A native speaker would reject as non-grammatical any of the following commands.

Help	{	myself
		himself
		herself
		itself
		ourselves
		themselves

He would accept only

Help yourself or Help yourselves.

By definition or rules, the reflexive object of the verb refers to the subject. Therefore, the restriction on selection here, the requirement that the reflexive form referring to *you* be used, is evidence that the deleted subject is *you*. Moreover, if a tag-question is added to the command, as in "Help yourself, won't you?" similar restraints prevail. The only possible selection for the pronoun subject of the tag here is *you*. Such a transformation provides additional support to the claim that *you* is the subject.

Traditional English grammar has been accused of 1.) either ignoring the primary system of language — speech — and concentrating on the written record of it, or 2.) confusing the two modes or levels.

The early universal grammarians were certainly interested in speech; in fact, as Noam Chomsky points out, "phonetics was a major concern of universal grammarians and . . . their phonetic theories were not very different from our own" nor did they seem to confuse speech and writing.⁴ However, the pedagogical materials and procedures used in today's traditional grammar classes are open to criticism. There is little or no time spent on the intonation and stress patterns of English speech or on the individual sounds. Most of the time that is not devoted to parsing, classifying parts of speech, or doing remedial drills for dangling modifiers or faulty parallelism is spent on the manipulation of squiggles, mastering the mechanics of punctuation, capitalization, and spell-

⁴For further discussion of the universal grammar tradition, see Noam Chomsky's paper "The Current Scene in Linguistics: Present Directions," which was read at the NCTE convention in November 1965 and published in *College English*, May 1966, pp. 587-595.

ing. This last area of activity yields many examples of marked confusion between speech and writing.

Ask the average high school student, for instance, how many vowel sounds there are in English and the answer will be "Five." Why? The approach to language is obviously based on writing. The alphabet contains five distinct vowel symbols: a, e, i, o, u. The total inventory of spoken simple (single) and complex (double) vowel units would include approximately 15, depending on the particular analysis of English speech.

The traditional pedagogical grammars also have been criticized for being prescriptive, rather than descriptive. By definition, pedagogical materials are not to be categorically condemned for being prescriptive; however, the *prescriptions* should be based on accurate *descriptions*. It is in this regard that the school texts and class procedures in traditional grammar have so often failed. Again there has been a lack of consistency and precision. Prescriptions commonly result from considerations of usage rather than from considerations of descriptive linguistics or grammar. But in the classroom usage and grammar have been confused so that deviations in usage have been interpreted as deviations in grammar.

Examples of various types of inadequate prescriptions are numerous. The following just represent some of the inadequacies.

When a student is castigated for using "dove" instead of "dived," for example, the important fact is that languages change has been ignored. Most teachers would not contest the concept of language change. For instance, they would readily admit that English has changed since Elizabethan times, and would concede that the transformation rules in the grammar describing Elizabethan English would differ in some respects from those in a grammar for current English (see the question-transformation under the discussion of grammaticalness above). However, the awareness, or rather the acceptance of change, within the life span of the teacher or even within the century is not so common. Minor variations such as this shift in the surface manifestation of the underlying past tense from the regular productive *-ed* ending "dived" to the internal replacive "dove" may easily occur within a decade. The shift may be precipitated by various factors, one of the most common being analogy. (In "dove," for instance, analogy to *drove*, *rode*, etc., could have been the significant factor.) But regardless of the reason, the item has been produced by the rules of the grammar and has been selected for approval on the basis of

usage. It would be unrealistic to reject "dove" as either ungrammatical or inappropriate.

The pedantic insistence upon "It is I" in preference to "It is me" is forcing a kind of grammar logic ("be" cannot govern an object and "me" is the object form of the personal pronoun "I"; therefore, "me" cannot be used) that defies the selection based on usage. The story about the teacher who spent one half hour drilling on "It is I" in class and then knocked on a colleague's door and automatically answered the question "Who is it?" with "It is me" is already a classic.

Consider also "I ain't." Actually "I ain't" regarded from the point of view of "logic" or "symmetry of paradigm" would be very useful. There is a hole in the set:

you	aren't	we	
he		you	
she		they	
it			
} isn't		} aren't	

There is nothing for *am* that corresponds to these contractions. One must say either "I'm not" or "I am not." This hole is especially noticeable in tag questions, such as "I'm going to live, _____ I?"

What English teacher has not struggled with the various solutions to the tag question dilemma:

- I _____, am I not? (too pedantic)
- I _____, aren't I? ("illogical"; contrary to number concordance)
- I _____, ain't I? (non-standard)

The usual solution is to pick either *a.* or *b.*, say it as fast and as garbled as possible, and vow to avoid this trap another time. How convenient it would be to have an uncensored "ain't" at one's disposal!

The rejection of "ain't" as non-grammatical is based upon the false assumption that it exists only as an isolated item of deviation from the monolithic standard English. However, "I ain't" is not to be considered the same as an utterance like, "table the is round," which is truly non-grammatical for all native speakers of English. There is no native speaker of English that would use such an utterance in ordinary discourse. Obviously "I ain't" is not nongrammatical in this sense. There are many native speakers who automatically say "I ain't." In other words "I ain't" is gen-

erated by the grammar rules that a large group of native speakers of English use and in this sense it is grammatical for them. "I ain't" is part of a system of an English dialect; it is not just an isolated form that deviates from an item in standard English. The choice regarding the use of "ain't" is then a choice between two grammar systems and their appropriateness for the given situation — a choice in usage.

One of the greatest shortcomings of the traditional pedagogical materials and procedures has been their concentration on these ~~materials~~ of surface deviations, the flatwork of diagramming and squiggle manipulation. (Even more devastating perhaps is the punitive approach toward deviations, which are often erroneously classified as grammar items). Both *remedial* and *new* instruction in surface conventions have, of course, a place in the curriculum but squiggle exercises or drills on so-called irregular plurals do not represent the essence of *grammar*. Grammar when defined in such terms can become Pandora's box encasing in a closed system tedious mechanical drills on items that may even be unrealistic. In such a routine approach, the exciting creativity of language and the vital challenge of the mystery of English and human language as a whole are lost.

THE STRUCTURAL APPROACH

The structural approach represents a reaction to the inconsistencies and the lack of scientific precision of the traditional grammar. The new approach was to be "scientific," marked by precision and objectivity, with findings based on data gathered from the observation of a corpus of speech or writing. Language was to be studied as a *formal* system of units and patterns in various categories, such as Phonetics, Phonology, Morphology, and Syntax. There were to be analyses of the units and their relationship as well as their distribution. Investigation was to focus especially on speech, the primary system in language essence and in the chronology of human development. The studies would be synchronic, rather than diachronic; i.e., they would study one fixed state of the language as a self-contained corpus of surface patterns that did not have to be explained by historical developments. This self-contained corpus of a language came to be regarded as a unique entity set apart from other language entities by selected contrastive features. It was these contrasts or differences, rather than the similarities, that were to receive the emphasis in the contrastive analyses that have ensued.

Semantic ambiguities were eschewed in favor of observable surface certainties. Surface signals replaced the notional definitions as indicators of 1.) parts of speech and 2.) sentence patterns. Semantics, which was regarded as a field defying reliable investigation and explicit description, was discounted; and so-called structural meaning was emphasized.

The Jabberwocky stepped out of his fairyland to become the standard bearer of the "new order" in the teacher education programs and in the high schools.

"Twas brillig and the slithy toves
Did gyre and gimble in the wabe;
All mimsy were the borogoves,
And the mome raths ~~lout~~ ^{lives} . . ."

was quoted again and again once it had been introduced by Charles C. Fries in *The Structure of English*³ to illustrate the structural meaning derived from the surface signals of the English language.

The structural signals were set in bold relief by stripping the quotation of its nonsense words and leaving the following skeleton:

Twas _____ and the _____y _____s
Did _____ and _____ in the _____;
All _____y were the _____s,
And the _____s _____

Substitution of words with "real semantic" content were made in the slots to establish the predictive power of the signals. Consider for example "in the _____." The clues here indicate that a noun (a Form Class I word, according to the structural approach) should be placed in the slot. Scarcely could the Jabberwocky or his creator have anticipated the "scientific role" he was to play as a bearer of the *test frame*, the name given to this slot-filling device which provides a structural environment for classifying a part of speech.

The importance of the so-called structure words, such as articles and prepositions, was often illustrated by ambiguous telegraphic messages or headlines in which the structure words had been deleted. Consider the following.

Rake leaves.

This is really two utterances. The ambiguity can be cleared up by the addition of "the."

- a. The rake leaves tomorrow.
- b. Rake the leaves tomorrow.

³ Charles C. Fries. *The Structure of English*. Harcourt, Brace and Company, 1952, p. 70.

To further illustrate the significance of structural meaning divorced from "real semantic content," such nonsense creatures as Fries's "woggles" started "ugging diggles" in sentences that were subjected to various manipulations. These exercises were to guide the students inductively to discover the structure signals. Consider, for example, the following statement about some of the woggles' best friends.

Druggles arged squinks.

The premise set up for the exercise would be that this is a *statement* which makes use of the regular productive features or patterns of the language. No proper names are used. (Anticipated answers in this sample exercise are given in parentheses.)

- a. If the sentence is rewritten as "Squinks arged druggles," does this sentence still convey the same meaning?

(No.)

Why? (Because of the word order: S - V-Transitive-O.)

- b. Change the statement into a command.

(Arg squinks!)

What changes or deletions did you make?

(The subject and-ed were deleted.)

- c. Change the active statement into a passive one.

(Squinks were arged by druggles.)

Why did you choose "were" instead of "are"?

(Because of the -ed past tense marker on arg.)

Why did you choose "were" instead of "was"?

(Because of the plural -s marker on squinks.)

- d. Change the statement into a negative.

(Druggles didn't arg squinks.)

- e. Change the statement into a question that would elicit the answer "yes" or "no."

(Did druggles arg squinks?)

Why did you choose *did* instead of *do* in these two changes?

(Because of the -ed past tense marker on arg.)

- f. Answer the yes/no question under e. with the short form answer:

Yes, ____ did.

(Yes, they did.)

What does "they" stand for in the original statement?

(Druggles.)

Why did you choose *they* instead of *he*, *she*, or *it*?

(Because of the plural -s marker on druggles.)

- g. If you were going to add an article to the sentence, would you choose "the" or "a"?

(The.)

Why? (a is restricted to the singular and both nouns, which are defined by position, are marked by the plural ending -s.)

Would you put "the" after "druggles"?

(No.)

Would you put it after "squinks"?

(No.)

Where would you insert it?

(Before either "druggles" or "squinks".)

Why? (Because the position for the article is before the noun.)

- h. Which of these two adverbs would you choose to add to this sentence: tomorrow or yesterday?

(Yesterday.)

Why? (Because of the past tense marker -ed on the verb "arg".)

- i. Would you add "very" to the statement as it now reads?

(No.)

Add "blirgly" to the end of the statement:

(Druggles arged squinks blirgly.)

Could you add "very" now?

(Yes.)

Where would you put it? (Before blirgly.)

Why? (Because an intensifier precedes adverbs.)

What productive device is used to mark "blirgly" as an adverb?

(-ly.)

What kind of adverb is it? (An adverb of manner.)

- j. Translate into "real content" sentences by substituting words with real semantic content for the nonsense items.

(Boys played jacks.)

(Girls strummed harps.)

In this exercise, most of the native speakers' responses would probably conform to those answers indicated above. However, this conformity can be misleading. The questions of the exercise were set up to lead to such conformity. For instance, only one sentence pattern in English can undergo a passive transformation: S — V-transitive — O. Outside such a directed context, other

possibilities for rewrites of "druggles arged squinks" might include such patterns as the following:

- Boys remained scamps. (S—V-linking — Pred. Noun)
- Guards worked nights. (S—V-intransitive — Adv. of time)
- Guests waited hours. (S—V-intransitive — Adv. of time-
duration)
- Toads hopped miles. (S—V-intransitive — Adv. of space-
duration)

The Jabberwocky verse, too, can be subjected to multiple rewrites. This surface ambiguity does raise a question about the validity of basing grammar analyses on observed surface signals.

Nevertheless, contested as these items are, the actual classroom experiments with such material do reveal that possible choices of responses are at least limited and that there is an overwhelming conformity in responses, which indicates that the following structural signals do play a significant role in conveying the message to the decoder:

1. Word order
2. Function words, such as articles, prepositions, conjunctions, intensifiers, and auxiliaries
3. Bound forms of structure, such as inflectional endings (like the plural marker -s for nouns) or derivational elements (like the -y that derives adjectives from nouns as in "dusty")

For description of the syntax patterns, the structural grammar employs two main categories of words instead of the traditional eight parts of speech. These two categories correspond roughly to the nails and the slabs of wood that would go into the construction of a table. The nails are the function or structure words; the slabs of wood are the content words that supply the "material" of the communication. Membership in classes of both types is determined by the test frames for which examples are given in the discussion on the content words.

Function words belong to closed classes with limited membership. Some function classes like the one with the request marker "please" consist of only one member. One of the largest classes is the preposition class, but obviously even here the number of English prepositions is limited and the possibility of adding a new one is very slight. It is a closed system as compared with the open noun or verb classes. Fries's inventory of function words include the following types: A. Determiners, including articles and all the words that would go into that position in a test frame; B. auxil-

aries; C. Not; D. Intensifiers; E. Coordinating Conjunctions; F. Prepositions; G. Do; H. Expletive *there*; I. Interrogatives; J. Subordinating Conjunctions; K. Response Signals: Well, oh, now, why; L. yes/no; M. Attention signals: look, say, listen; N. Please; and O. Lets.⁹

The content words fall into four form classes: I, II, III, IV, which correspond roughly to nouns, verbs, adjectives, and adverbs. These are open classes with a large membership in each class. Membership in these form classes is established by the structural signals of test frames which were mentioned earlier. Typical test frames for establishing membership in Form Class I are:

Frame A. (The) 1 is/was old.
 s are/were

Frame B. The praised the

Frame C. The ran there.

Typical structure patterns or formulas to establish structural meanings or functions of these forms are the following, which demonstrate the subject/object functions of Form Class I. (The numbers indicate the form class; D, the function word — Determiner; +, the plural form; —, the singular form; the letter following 1, the referent (repetition of the same number in the pattern indicates the same referent); b, a linking verb like be; and d, the past tense.)

D 1 2 — d 4 Those boys worked here.
+ ±

D 1* 2b D 1* That girl is a lawyer.
— —

D 1* 2 — d D 1* That woman paid the bills.⁷
— ± +

Basic structural patterns are given to describe English sentences. Noun clusters and verb clusters are phrase units in these structural patterns. Each cluster consists of a head word, the main focus point, and its modifiers or related parts. For example, in the noun cluster "that pretty little girl in the car who is wearing a blue beret," "girl" is the head word; in the verb cluster "received a new watch," "received" is the head word. Immediate constituents (I.C.'s) indicating layers of structure show the relationship of items on various levels in a sentence analysis. These constituents usually represent binary, adjacent parts, i.e. they are

⁹ *Ibid.*, pp. 87-103.

⁷ *Ibid.*, pp. 191-192.

usually continuous I.C.'s. However, some parts that belong together syntactically are separated in the sentence; these are called discontinuous I.C.'s. Examples of both of these types of I.C. cuts have already been presented under the discussion on adequacy. "The secretary handed out the rosters" gives an example of continuous I.C.'s; "The secretary handed the rosters out," an example of discontinuous I.C.'s.

In the structural grammar, syntax, as discussed above, is based upon morphology, with its inventory of form units; morphology, upon phonology, with its inventory of sound units; phonology, upon phonetics, with its inventory of sounds and the description of their various contrastive features. The sounds are regarded as the primary substance from which language, essentially equated to speech, is formed. Phonetics, therefore, is the starting point for the structural description of language.

This approach to language description through sounds is based upon a discovery technique. It has been used in exploring unrecorded languages; but starting from this surface level of a language which is already known in depth to the researcher is unnecessary, even unsound. It reverses the real process or operation of language which leads from syntax to the physical expression of it in speech or writing.

Each of the "___ology categories" above is made up of minimal significant contrastive units of the particular category. These are the ___emes. Examples of ___emes are the phonemes, the minimal significant contrastive units of sound, such as /p/ or /b/, and the morphemes, the minimal significant contrastive units of form or morphology, such as the bound morphemes ___s and ___er in "teachers," or the free morpheme "teach." Each of the ___emes include nonsignificant variants, the allo___. For instance, the phoneme /p/ includes an aspirated [p'] and an unaspirated [p] which are not significant for conveying meaning. The selection of the particular allophone will be determined by the environment. Compare the p's in *pat* and *tap*. The /p/ in initial position is aspirated; in final position it is not. There is no pair of words in which the sole difference rests in the presence or absence of this aspiration, such as *pat* /p'æt/ vs. *pat* /pæt/.

Numerous examples of allomorphs can be found in the bound inflectional morphemes. Consider the many variations of the bound morpheme indicating plurality in the noun system. The allomorphs of this morpheme range from the three different predictable pronunciations of the so-called productive s-ending (*judges* /əz/; *dogs* /z/; *cats* /s/) to the various forms of the "traditional irregular noun" such as, *oxen*, *feet*, *men* and so on.

These are non-significant variants; the plurality is expressed through any of the forms.

Just as syntax has its patterns of structure, so too do the other categories. Morphology deals not only with word inflection but also with word formation (roots, derivatives, and compounds). For both of these areas the bound morphemes have great significance. They fall into two classes —

- a. Inflectional bound morphemes which in the structural inventory of items number 8: the plural and the genitive for nouns; the third person singular, the past tense, the past participle and the present participle for verbs; and the comparative and superlative for the adjectives.
- b. Derivational bound morphemes, which are numerous, include the following especially productive ones:

nouns: ness as in happiness

 er as in teacher

verbs: ize as in civilize

 (i)fy as in beautify or classify

adjectives: ish as in childish

 y as in dusty

adverbs: ly as in gladly.

Phonology includes a segmental system of vowels and consonants and a suprasegmental system of stress, intonation, and pause or juncture. These suprasegmentals may differentiate syntax patterns or morphological units. Consider the following:

- a. Syntax:

Mary is crying.
vs.
Mary is crying?

- b. Morphology:

- 1.) Derivative

permit (noun)
vs.
permit (verb)

- 2.) Compound

a redcap (compound)
vs.
a redcap (free phrase)

Some of these suprasegmental features are also caught up in the writing system.

As already noted, the aim of the structural approach is to be descriptive not prescriptive. The description is to give an account of the language as it actually is, not as it "should be." As mentioned earlier, "I ain't" from this point of view is grammatical for the system to which it belongs. The insistence upon this analysis, however, has given rise to much criticism and misinterpretation of the structural approach. To say that an item is grammatical for a certain dialect does not necessarily mean that the dialect is going to be taught in the classroom. In fact, a non-standard dialect is not really appropriate for the classroom register of usage and it seems rather unrealistic to think that teachers are going to be drilling on "I ain't" in attempts to teach a second dialect out of context to a native speaker of standard English.

In actuality the structural grammar contains much clearly organized data in its inventories. The surface precision and objectivity of its descriptions afford neat units for class instruction. The fresh approach has brought about in many school children an awareness of patterns and features of surface structure and has stimulated creativity in language manipulation. Successful applications have been made to spelling by pattern, to reading skills, to composition, and to literary appreciation.

But the system is presented in categories or sets of a *state* of language, rather than levels of *operation* and the students' native competence in the language has already exceeded the description and the sets presented. The students can manipulate the nonsense utterances because of this competence. Likewise, because of this competence, they can see beneath surface similarities. A deeper analysis could bring a more challenging dimension to the surface manipulation, which is a pedagogical technique also employed in the inductive approach to the generative-transformational grammar as it is presented in the schools. (Notice the seventh grade materials prepared by the Oregon Curriculum Study Center, 1964 and 1965). Students are ready for this challenge in depth.

THE GENERATIVE-TRANSFORMATIONAL APPROACH

The third grammar, the most recent grammar development to have an impact upon the school curriculum is the generative-transformational grammar, which has received more and more atten-

tion since its introduction to American linguistics by Noam Chomsky in his *Syntactic Structures* (Mouton and Co., 1957).

This grammar has profited from both of the previously described grammars. It is not surprising to find certain shared features among the three approaches since all are dealing with a common substance, the *English language*, and more specifically a significant unit in this language, the *sentence*. One should not be surprised, for instance, to discover that all three approaches see in this basic unit a fundamental division corresponding to the traditional subject and predicate. The first rewrite rule of the third grammar, for instance, includes these prime elements in the following way:

S(sentence) → (consists of) NP(noun phrase)
+ VP(verb phrase).

Generative-transformational grammar emerges, nevertheless, as a unique approach. It seeks to discover and to explain the universals of language with the intuition of a theoretical scientist and with the precision of a twentieth century computer. The generative-transformationalists are frank in admitting that they do not know the answers. Their grammar is not a closed box of established inventories of language elements. They are rather exploring the depths of human language, much as the scientists are exploring the expanse of outer space.

Noam Chomsky describes the procedures and goals of this new grammar in the following words,

At every level of abstraction, the linguist is concerned with explanation, not merely stating facts in one form or another. He tries to construct a grammar which explains particular data on the basis of general principles that govern the language in question. He is interested in explaining these general principles themselves by showing how they are derived from still more general and abstract postulates drawn from universal grammar. And he would ultimately have to find a way to account for universal grammar on the basis of still more general principles of human mental structure. Finally, although this goal is too remote to be seriously considered, he might envision the prospect that the kind of evidence he can provide may lead to a physiological explanation for this entire range of phenomena.

I should stress that what I have sketched is a logical, not a temporal order of tasks of increasing abstractness.⁸

This generative-transformational grammar is concerned in particular with the processes of sentence construction which establish the relation between sound and meaning in a language. The gram-

⁸ Chomsky. "The Current Scene in Linguistics: Present Directions," p. 591.

mar describes the deep and surface structures and explains their relationship, the process of moving from one to the other. According to Chomsky, "the deep structure of a sentence is the abstract underlying form which determines the meaning of the sentence, it is present in the mind but not necessarily represented directly in the physical signal. The surface structure of a sentence is the actual organization of the physical signals into phrases of varying size, into words of various categories, with certain particles, inflections, arrangement, and so on."⁹ It is to be noted that from a generative-transformational grammar may be derived inventories of elements that appear at various levels. In this sense, the structural grammar is really an aspect of this explanatory grammar of process.¹⁰

The first part of the generative-transformational grammar consists of Phrase Structure Rules which state in abstract formulas, the so-called rewrite rules, the choices open for selection in generating the great variety of English sentences. It is essential that the rules be ordered for the greatest economy of description. Each choice made in generating a sentence is noted in a formula called a string. These strings are derived from the rules. Every time a rule is applied, a new string is derived. If the same rule is applied twice, two strings will be produced. The initial string of any sentence is *S* (*S* = sentence). The number of intermediate strings before the terminal string will depend obviously upon the number of choices made. Lexicon choices must also be made in this part of the grammar. They are substituted for symbols in the string which at this point looks more like a mathematics or chemistry formula than an English sentence.

To get a general surface impression of this format for describing the process of selection and derivation in generating sentences, consider the following simplified "mini-grammar" for a restricted segment of English. This mini-grammar will not deal with such significant elements in the deep structure, as the inflectional endings. It will be limited to "free morphemes." *Aux*, for instance, will always indicate a modal only; it will not indicate the tense, which is the real essence of *Aux*. (In fact, tense is the *only* obligatory element in *Aux*.) This superficial grammar, with these obvious restrictions, will generate sentences containing intransitive verbs, transitive verbs, linking or copulative verbs, and sentences containing *be*.

⁹ *Ibid.*, p. 588.

¹⁰ *Ibid.*, pp. 593-594.

Phrase Structure Rules:

- P.S.1. $S \rightarrow NP + VP$ (=A sentence consists of a noun phrase and a verb phrase)
- P.S.2. $VP \rightarrow Aux + MV$ (=A verb phrase consists of an auxiliary and a main verb)
- P.S.3. $MV \rightarrow \begin{cases} be + Pred \\ V \end{cases}$ (=A main verb consists of two choices: 1) be+pred. or 2) other verbs)
- P.S.4. $Pred \rightarrow \begin{cases} Subst \\ Loc \end{cases}$ (=A predicate consists of a substantive or a locative adverb)
- P.S.5. $V \rightarrow \begin{cases} \begin{cases} Vi \\ Vt + NP \\ Vc + Subst \end{cases} \\ Vh + NP \end{cases} + (Man)$ (=A verb consists of an intransitive verb; or a transitive verb and a noun phrase; or a copulative verb and a substantive; or a verb like *have* and a noun phrase. The addition of an adverb of manner is optional with any verb choice except the $Vh + NP$ choice.)
- P.S.6. $Subst \rightarrow \begin{cases} NP \\ Adj. \end{cases}$ (=A substantive consists of a noun phrase or an adjective.)
- P.P.7. $NP \rightarrow Det + N$ (=A noun phrase consists of a determiner and a noun.)

The following gives examples of derivational strings which could be derived from these rules.

String derived from P.S. Rule

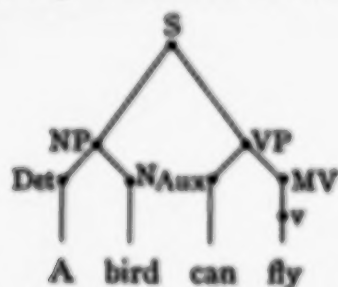
S

- NP + VP (P.S.1)
- NP + AUX + MV (P.S.2)
- NP + AUX + V (P.S.3 — Second choice)
- NP + AUX + Vi (P.S.5 — First choice. Notice P.S. Rule 4 did not apply after the choice of V in P.S.3)
- Det + N + AUX + Vi (P.S.7. Notice P.S. Rule 6 did not apply after the choice of Vi in P.S. Rule 5.)

Choices from the lexicon would now replace the symbols and a terminal string such as the following would emerge.

A + bird + can + fly.

This process could be depicted on a tree in the following way.



If the grammar above had been complete so that the inflectional endings would have been included as elements in the phrase structure rules, the terminal string resulting from the application of the rules would still not look like a real sentence.

Consider for example *Aux*. *Aux* really contains many elements: the required tense marker and several optional expansions. In this way *two* simple rules can account for the multiple aspects and tenses of the English verb (present, present progressive, past, past progressive, present perfect, and so on).

$$\text{Aux} \rightarrow \text{Tns (M) (have + -en) (be + ing) } \left\{ \begin{matrix} \text{be} \\ \text{V} \end{matrix} \right\}$$

(The auxiliary consists of tense, which is required, and optional expansions with a modal (can, may, etc.), have + past participle, or be + present participle before *be* or other verbs.)

$$\text{Tns} \rightarrow \left\{ \begin{matrix} \text{Pres} \\ \text{Past} \end{matrix} \right\}$$

In the sentence "the mice are hiding" where the choices in *Aux* consist of Present tense and be + ing, the terminal string would look like the following:

The + mouse + Z_s + Pres + be + ing + hide
(Plural
marker)

Transformation rules would be needed to express the plural of mouse <mice> and the present of be <are> and the present participle of hide <hiding>. One transformation rule can move all the elements of the auxiliary, *Aux*, to their appropriate positions. This order of elements may seem needlessly complicated. However, the order is most economical in accounting for ques-

tions and negative statements. All terminal strings in the grammar must undergo transformations before they can emerge in a physical output form of speech or writing that can be used in communication or language performance. The rules describing these transformations, which may consist of changes in position or form, deletion, addition, and so on, are called transformation rules.

In a gross description, the basic output patterns which result from obligatory transformations number only four and can be described in the following set by position:²¹

Type	Position			
	1	2	3	4
to be	NP	be	Pred	(Adv)
I	NP	V _i	Ø	(Adv)
II	NP	V _i	NP	(Adv)
III	NP	V _i	Subst	(Adv)

Examples:

to be. The boy is happy. The boy is here. The boy is a student.

I. The boy sings.

II. The boy wrote a poem.

III. The boy became a poet. The boy seemed angry.

It will be noted that all the sentences are affirmative statements with only one subject and one verb or be. The rest of the sentences in English can be related to them. Additional transformations will be needed to produce the wide variety of English sentences that a native speaker uses in communication. Some of these will be single based transformations involving only *one* sentence pattern, for instance, question or negative transformations. Some of the transformations will be multiple based, involving the combination of sentences. These multiple-based transformations will range from the fairly simple addition of a sentence by the use of *and* (The mice are hiding and the cats are hunting.) to much more complex embeddings with deletion of all but one word of the embedded element.

²¹ Owen Thomas. *Transformational Grammar and the Teacher of English*. Holt, Rinehart, and Winston, Inc., 1965, p. 35. For consistency of terminology in this monograph, "Subst" has been substituted for "Comp" on the chart.

The following utterances are examples of sentences resulting from multi-based transformations at various levels of complexity.

Mary went home and Bob went to class.

When Bob went to class, Mary went home.

Bob is the boy who is playing the piano.

Mary said that Bob went to class.

Mary and Bob went to class.

Mary went to class.

+

Bob went to class.

Mary considered Bob intelligent.

Mary considered Bob.

+

Bob is intelligent.

Mary is a pretty girl.

Mary is a girl.

+

The girl is pretty.

Swimming is good exercise.

It is exercise.

+

The exercise is good.

+

One swims.

The basic challenge this approach poses in exploring the essence of the English language is enough to justify its inclusion in the English Curriculum. However, are there any incidental practical applications? What fringe benefits — and it must be underscored that they are just *fringe* benefits — could this new grammar of process possibly offer the classroom English teacher who must wear the numerous proverbial hats demanded by the triad of the curriculum and by the student variable, ranging from the gifted who need to be stimulated to the disadvantaged in the day classes and the adult education programs of the high schools who need help in mastering the language?

First of all, the concept of universal depth where all languages converge gives promise of facilitation not yet fully considered in second language learning and teaching. Furthermore, a study of the specific transformations used to express the syntax of the deep structure in the surface forms could lead to economy of instruction by making explicit those transformations that produce

the differences between the various surface patterns of the target and native languages involved.

It is precisely this level of the grammar, the transformation level, that has also been the most productive in the teaching of composition and of literary analyses.

A study in applications of generative — transformational grammar to composition at Ohio State seems to indicate a positive correlation between improvement in writing and a study of generative-transformational grammar. Improvement was measured by the increase in complexity and variety of sentences. The "psychological reality" of the generative-transformational grammar theory based on the hypothesis that "the logical structure" of this grammar parallels the "psychological structures of the process of sentence production" in the native speaker, served as a basis for this research. The following observations from the NCTE Research Report No. 6 "The Effect of a Study of Transformational Grammar on the Writing Ninth and Tenth Graders" emphasizes the significant role that this adequate grammar can have:

The composition teacher, not having been provided with an adequate theory of language (or grammar), is forced to develop or secure curricular materials that will stimulate and challenge his students to write — hopefully, to write better. Disaffection with inadequate grammatical systems has led to the fairly widespread adoption of anthologies containing provocative essays which are intended to supply both topics for writing assignments and model sentences for student emulation. Again the role of the composition teacher becomes that of deadline-imposer, critic-reader, and theme grader. He seems to be incidental to whatever process it is that transforms a writer of fragments or poor sentences into a writer of acceptable prose. And he seems to be, unfortunately, a living indictment of researchers' failure to provide even modest support for the building of a suitable composition program. At the very least, such support would include the development of an adequate grammatical system.*

Also literary criticism might find a new dimension in the application of the explicit description of sentence development that the generative-transformational grammar offers. The styles of various genres and the style of writers within these genres could be compared with greater precision. Those who analyze the colorful deviations that poets especially delight in might profit particularly from a clearly defined norm of language process.

* Donald Bateman and Frank ^{Kidd} ~~Kidd~~. *The Effect of a Study of Transformational Grammar on the Writing of Ninth and Tenth Graders*. NCTE Research Report No. 6. National Council of Teachers of English, 1966, p. 6. This is a condensation of the Cooperative Research Project #1746, "The Effect of a Knowledge of Generative Grammar upon the Growth of Language Complexity," 1964.

e. e. cummings' poetry, for instance, contains many deviations at the various levels of language. Consider the following quotation from his poem describing the stark scene of bare trees from which a dropped leaf goes whirling. Notice particularly the deviation in the NP in which the determiner follows the noun "leaf a" and the deviation in relativization where "which from" has been produced instead of "from which." Notice also the deviations in the surface distribution of the graphemes. A literary critic might see in these spiggie deviations a restatement of the syntax deviations in conveying the poem's message of the whirling leaf. Grammar can supply data; the interpretation of it is left to the critic.

It
rees whic
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om droppe
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a: go
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Irll
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g

Thus, the Proteus of the English Curriculum appears in his last form. In this universal form of the generative-transformational grammar, he may divulge important answers to the riddle of effectiveness for the teacher in his multiple roles. This Proteus certainly brings a new rigor, a new essence, and a new challenge that could help an English curriculum meet the needs and the interests of the space age.